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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,774	08/10/2006	Richard H. Lyon	LYON 1001 US	3836
21403	7590	04/30/2008		
STEVEN J WEISSBURG 238 MAIN STREET SUITE 303 CAMBRIDGE, MA 02142			EXAMINER PAUL, DISLER	
			ART UNIT 2615	PAPER NUMBER
			MAIL DATE 04/30/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/553,774

**Applicant(s)**

LYON ET AL.

**Examiner**

DISLER PAUL

**Art Unit**

2615

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) \_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-20, 43-46, 56-60, 78, 83, 84, 87-89, 93, 94 and 138 is/are allowed.
- 6) ☒ Claim(s) 95 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)  
Paper No(s)/Mail Date 12/13/06
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 95 is rejected under 35 U.S.C. 102(e) as being anticipated by Sommerfeldt et al. (US 7,272,234,B2).

Re claim 95, Sommerfeldt et al. disclose of the method for transducing an acoustic signal produced in an acoustic medium by a source at a source location, the signal having a frequency within a range from a low to a high, and corresponding wavelength within a range from long to short, the method comprising the steps of: measuring sound pressure at at least two locations along a sensor axis that passes through the source location, at an array location, spaced from the source location (fig.1 wt (104), fig.3, col.5 line 45-67, col.6 line 18-20); based on the measured sound pressure, estimating a sound pressure derivative along the sensor axis at the array location, and generating a signal that is proportional thereto; and driving a loudspeaker, located on the sensor axis, spaced away from the source location farther than is

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the array location, with a signal that is proportional to the estimated sound pressure derivative signal (fig.1 wt (102); col.6 line 20-30/based on error signals of microphones speaker is driven and further see fig.8, col.8 line 30-50).

***Allowable Subject Matter***

1. Claims 2-20, 43-46, 56-60, 78, 83-84, 87-89, 93-94, 138 are allowed.

While, Elko disclose of the apparatus for transducing an acoustic signal produce by a source, the signal produced by a source, the signal having a frequency within a range and an array of at least two pressure sensors spaced apart along a sensor axis located at an array location; with a processor and the comparator which generate a threshold signal.

However, none of the prior art of record disclose of the feature wherein the loudspeaker that is configured to output sound waves in response to an input, at a loudspeaker location that is on the sensor axis; and a first signal processor, coupled to an output from the array of pressure sensors, configured to generate a signal that corresponds to an estimate of a pressure derivative approximately along the sensor axis at the array location; and a second signal processor, having an input that is coupled to an output of the first signal processor, and having an output that is coupled to the loudspeaker input, which second signal processor is configured to generate an output signal that is proportional to the estimate of derivative signal; and a third signal processor, coupled to

an output from the array of pressure sensors, configured to generate a signal that corresponds to a weighted source pressure sum and a comparator, coupled to an output of the third signal processor that generates the weighted pressure sum signal, configured to generate a pressure sum error signal that corresponds to whether the pressure sum signal is less than a threshold signal; and a fourth signal processor, coupled to an output of the comparator, configured to generate a coefficient signal based on the pressure sum error signal, which coefficient signal is input to the second signal processor which is further configured to generate an output signal that is proportional to the estimate of derivative signal, with a proportionality that is based on the coefficient signal

Re claims the independent claims 43,78,87,93-94,138 have been analyzed and allowed partly for incorporating the similar feature as in claims 2 above.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DISLER PAUL whose telephone number is (571)270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. P./

Examiner, Art Unit 2615

/Vivian Chin/

Supervisory Patent Examiner, Art Unit 2615